F. INDEPENDENT RESEARCH AND DEVELOPMENT (IR&D)

In FY 98, the DoD continued to make progress in improving the management of IR&D and improving communications with industry. Section 2372(c)(3) of Title 10 USC provides for reasonable and timely communications of 1) DoD's planned or expected future needs to contractors, and 2) contractors' progress on IR&D programs to the DoD.

Policy and Management

The Military Departments have always had vigorous IR&D programs. To provide coordinated leadership for IR&D activities, in 1996, DoD established a senior executive Technical Coordination Group (TCG) consisting of representatives from OSD and the Military Departments. In 1998 the TCG continued to provide the leadership and coordination necessary to maintain an effective IR&D program. For example, industry uses defense technology planning and requirements information provided by DoD to plan IR&D support of defense needs. The leadership provided by the senior management team continues to enhance DoD's responsiveness in meeting industry's information needs. The TCG and industry representatives meet periodically to foster improvements in communications both within DoD and between DoD and industry.

DoD IR&D policy is promulgated in DoD Instruction 3204.1, "Independent Research and Development (IR&D) and Bid and Proposal (B&P) Program." In 1998, DoD revised this DoD Instruction as a DoD Directive to bring policy guidance in line with current law and program administration. Once issued, the new document will update DoD policy and practices regarding management of IR&D, providing guidance to the Military Departments. In addition, the DoD Directive will formally charter the TCG.

During 1997, OSD completed an evaluation of the IR&D program. The evaluation focused on the impact changes in regulations and policy had on the IR&D program. During 1998, the evaluation's results guided actions to further improve both program oversight and communications with industry. For example, the evaluation reviewed how industry reports IR&D project data to the Defense Technical Information Center (DTIC) using codes identifying related research areas. DoD then links the reported IR&D data with DoD's technology areas. This mapping of IR&D data to the technology areas helps the DoD assess how industry research will support future DoD technology priorities. In addition, the evaluation study exposed a disturbing industry trend toward short-term research and away from long-term research. Actions addressing the evaluation study's findings are underway.

Technical Communications from Industry

Until FY 93, IR&D project descriptions from contractors were made available to the DoD only in hard copy and summary descriptions in an on-line database maintained on a mainframe computer at DTIC. In FY 93, DTIC began to distribute, for government employees only, a streamlined electronic version of the IR&D project descriptions on CD-ROM media for the Microsoft Windows platform. Each year, DoD and industry contributors have further streamlined the process. Contributing industry contractors now prepare the project descriptions on personal computers and submit them electronically. As a result, data preparation and submission costs for contractors have decreased significantly.

The CD-ROM contains over 4,000 technical project summaries valued at approximately $2.5 billion. These submitted projects represent almost 90% of the cost recoverable

IR&D efforts by defense contractors. Company submissions to the DTIC database are voluntary. DoD continues its efforts to get as many of the DoD contractors as possible to submit IR&D data. Letters to non-submitting contractors explaining the potential value of these reports often results in more data submissions. Over 200 copies of the IR&D CD-ROM, containing proprietary data, are distributed each year within DoD. Users of the data can be found in Defense laboratories, systems commands and program offices. To foster communications between DoD and industry engineers, DTIC provides the IR&D CD-ROM distribution list to industry. DTIC is now developing a restricted access World Wide Web site to distribute the IR&D data to authorized users. Resolving the information security issues will improve the cost effective distribution and access to IR&D data.

Defense Planning Documentation for Industry

The Department makes many technology planning documents available to Defense contractors. The Defense contractors find this information valuable in making business decisions and planning IR&D programs. IR&D web pages provide access to unclassified documents for searching, viewing, and downloading by Government activities and DoD contractors only. DTIC maintains the main IR&D web site (http://www.dtic.mil/ird/) and includes links to Military Service information, for example, to unclassified documents available through the Navy Acquisition Research Information Center (NARDIC).

Matching Defense Requirements to IR&D Technologies

IR&D records provide a source of information for technology options that may address particular emerging military requirements. A formal search of IR&D records at the staff level can be an effective means of matching service technologists with industry points of contact (PoCs), particularly when those industry PoCs are nontraditional suppliers for the Service in question.

For example, the Air Force develops information on their infrastructure requirements and Air Force Material Command staff actively search the IR&D CD-ROM database to match industry research efforts against those infrastructure requirements. Where these searches identify a possible interest, points of contact at the requiring Air Force activity and the industry contributor are connected.

The Army's strategy for matching its requirements to emerging IR&D technologies includes extensive use of executive conferences and technical interchange meetings with industry. In addition, the Army widely distributes the CD-ROM database to its scientists and engineers, and Army Research Laboratory managers who support acquisition systematically compare their technology needs to the CD-ROM.

The Navy seeks to leverage IR&D investments by a process in which acquisition program managers are directly involved in searches of the IR&D CD-ROM to match industry research efforts against their S&T requirements. The Navy believes these program managers are in the best position to determine relevance of the reported IR&D to their needs.